



Fixed Wireless Access

Panel Discussion

Governor's Task Force on Broadband

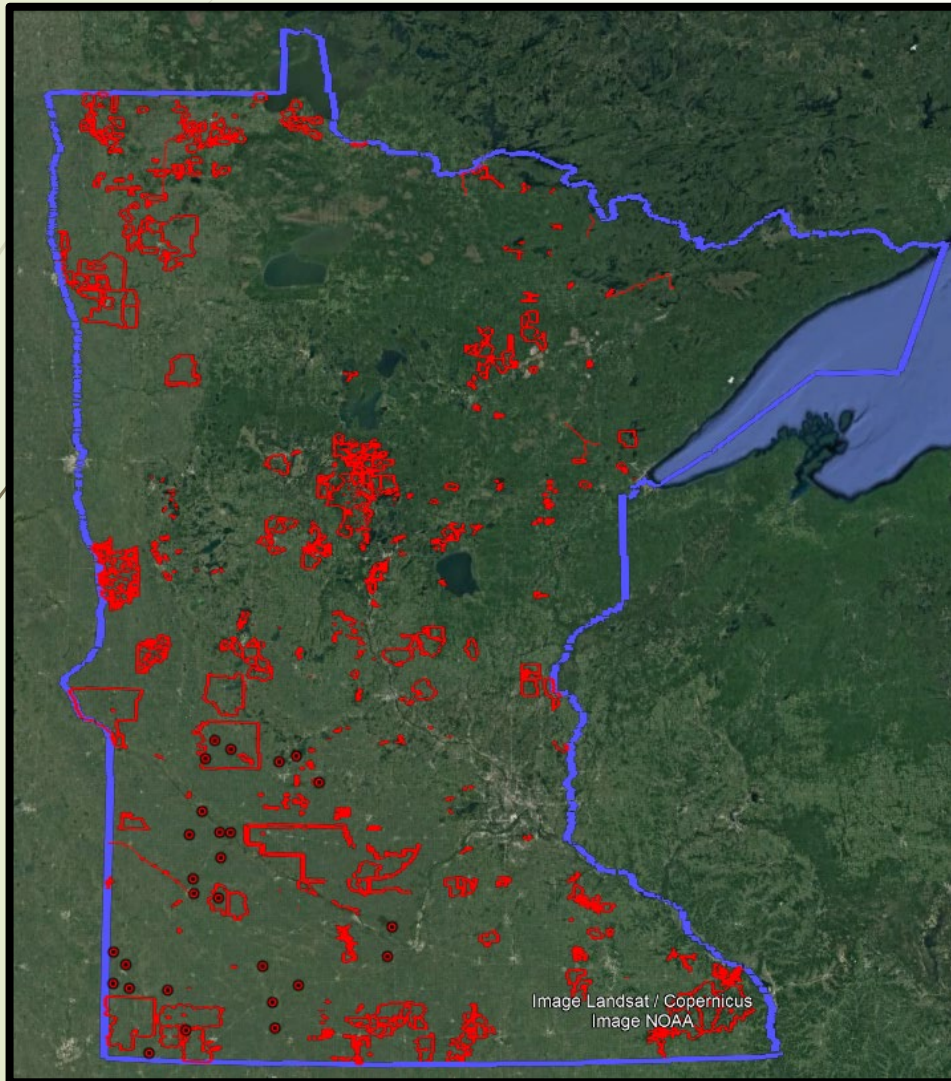
May 24, 2021



FWA - Panelists

- ▶ Meeker Cooperative Light & Power - VIBRANT Broadband
 - ▶ Luke Johnson - Electric & Broadband Operations Manager
- ▶ Woodstock Communications
 - ▶ Terry Nelson – General Manager & Vice President
- ▶ Genesis Wireless
 - ▶ Mary Lodin – President
 - ▶ Jay Mankie – Vice President
- ▶ MVTW Wireless
 - ▶ Tim Johnson – Operations Manager
 - ▶ General Manager – PCS Technologies, Inc.

Minnesota – Broadband Grant Program

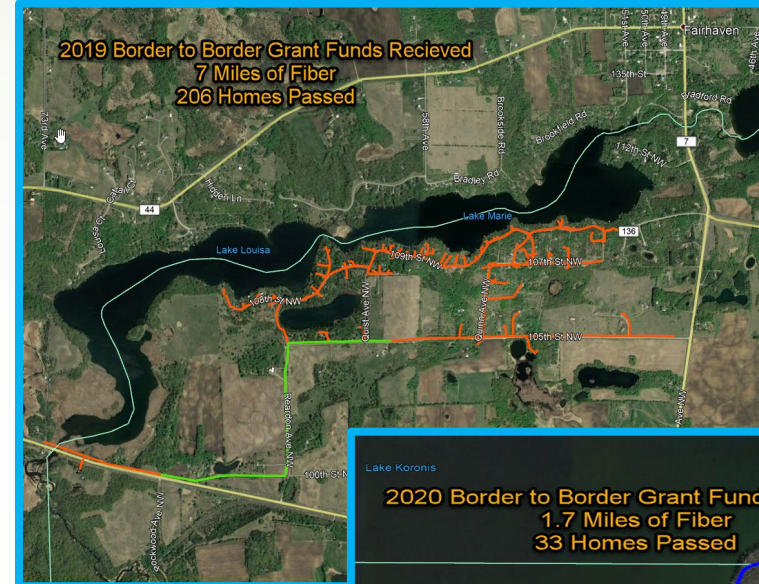
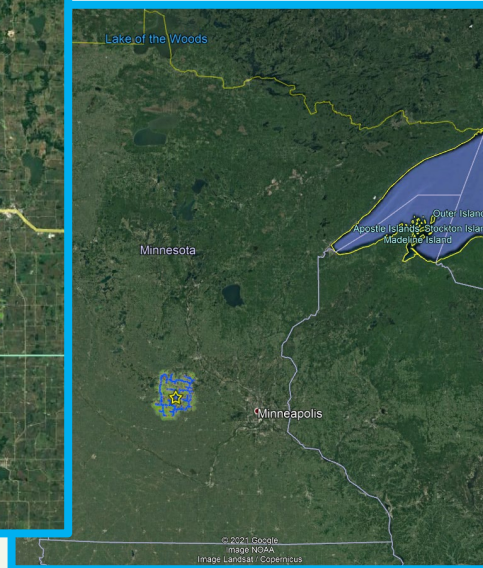
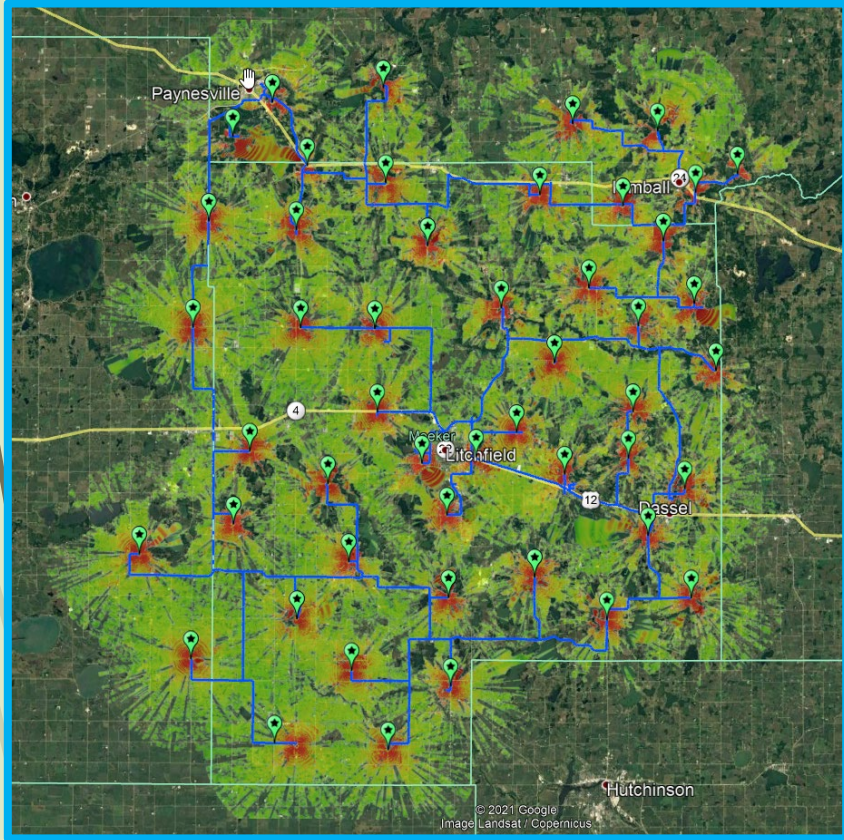


Office of Broadband Development

- Last Mile and Middle Mile Awards BUILT
- Awarded and TO BE BUILT

The Border to Border Broadband Development Grant Program was created in [Minn. Stat. 116J.395](#) in 2014. The legislative focus of this grant program is to provide state resources that help make the financial case for new and existing providers to invest in building broadband infrastructure into unserved and underserved areas of the state.

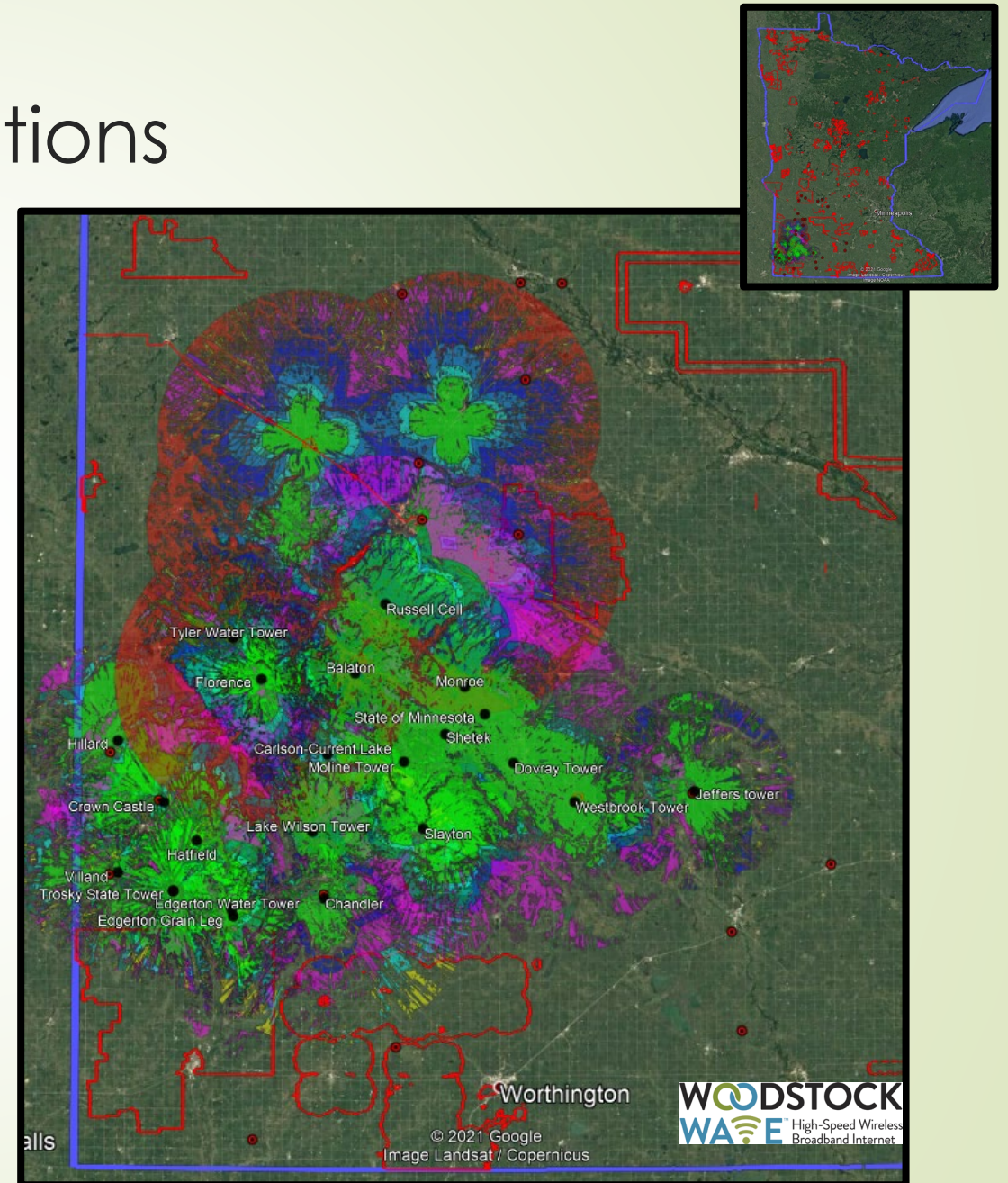
Meecker Cooperative Light & Power - VIBRANT Broadband



VIBRANT Broadband provides a hybrid fiber optic and fixed wireless internet experience at the speed of light for all that life has to offer. Lightning fast and reliable internet with no data limits and Voice over Internet Protocol (VoIP) allows you to keep in touch locally or across the world.

Woodstock Communications

- Serving SW Minnesota communities since 1942 with telephone, internet, etc.
- Completed FTTH build to all our ILEC areas in 2011.
- Started Woodstock wave Wireless in 2015 because of the need in rural areas where fiber is not feasible without grants or support
- Woodstock did receive a hybrid wireless/fiber Border to Border grant in 2017 for Pipestone County
- Almost all of the towers we own or lease have a fiber backhaul due to also serving cellular backhaul for Verizon, T-Mobile, AT&T, giving us unlimited bandwidth back to our CO.
- Currently using 5.8 MHz unlicensed frequencies, offering packages up to 100Mbps where available, up to 8 mile radius, serving 1300 customers.
- Also purchased some 3.65GHz licensed CBRS spectrum, not deployed yet

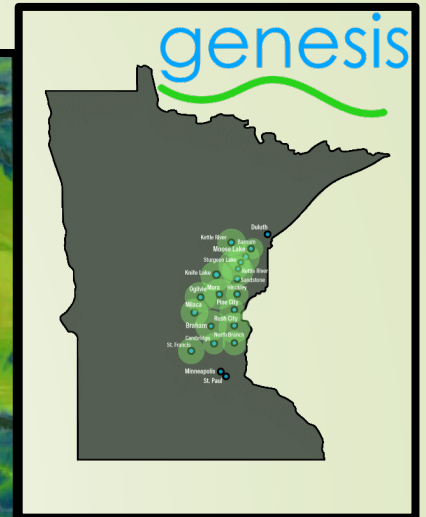
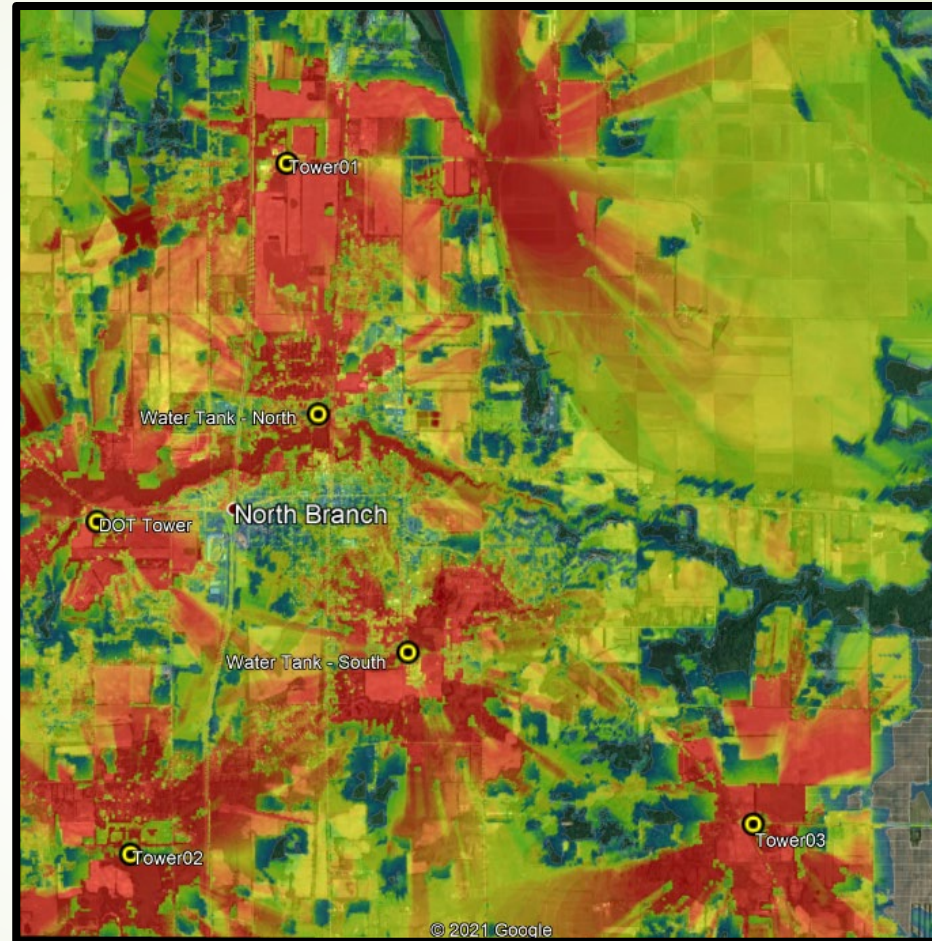


Genesis Wireless



- Successful long-term partnerships with local government and residents to broadcast from existing and new-build structures

- Fiber-fed towers, fixed wireless to user
- Upgraded 11Ghz licensed backhaul offers 50Mb/10Mb
- 1200 customers, 8 counties
- Growth plan includes LTE fixed wireless radios offering 100Mb/20Mb
- Customized bandwidth available

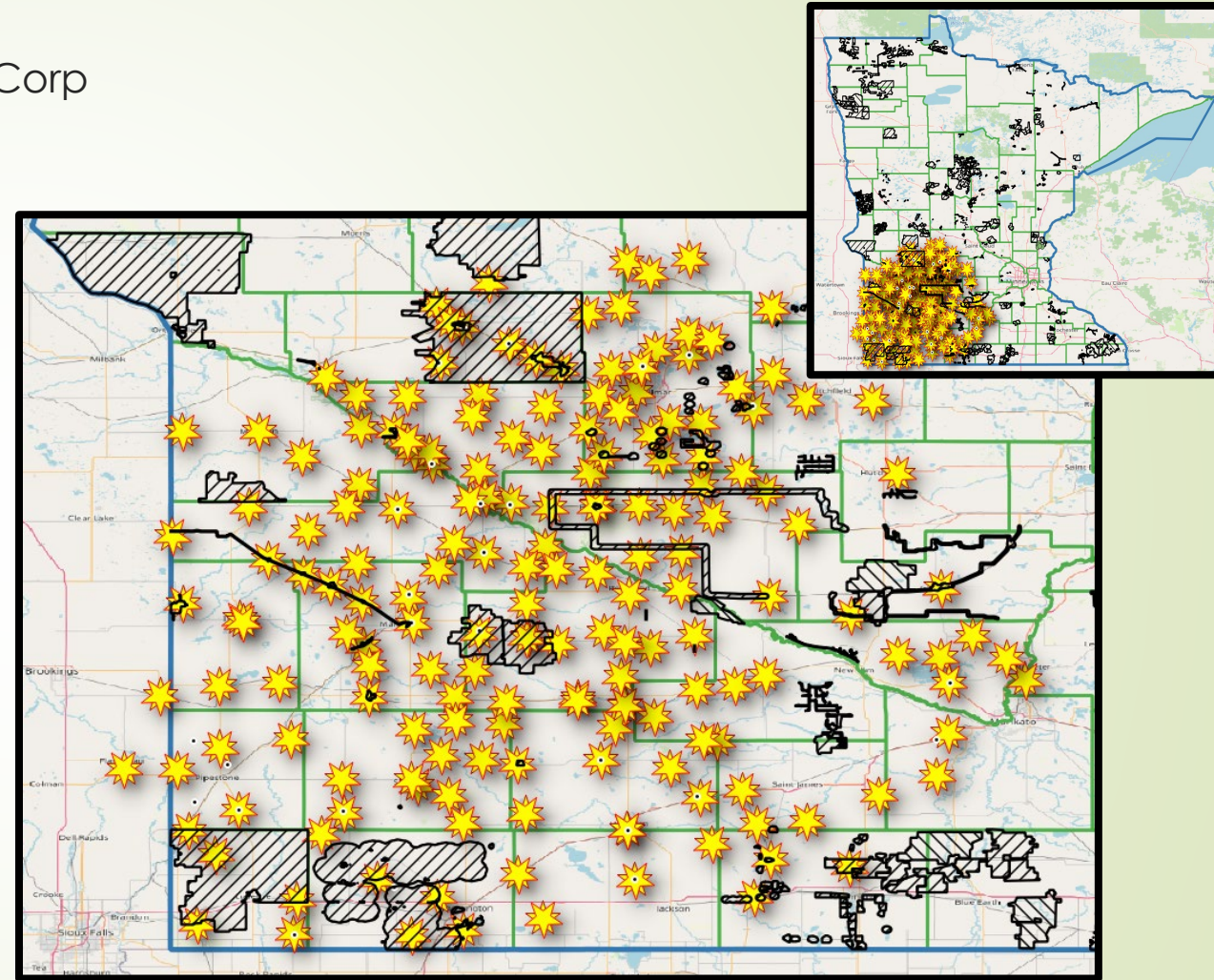


Genesis Wireless, rural Internet specialists based in Braham, offers fiber and fixed wireless Internet solutions throughout areas of East Central Minnesota. Since 1999, Genesis has been building the network that now serves our hometown communities from more than 100 access points.

MVTV Wireless

Minnesota Valley Television Improvement Corp

- Incorporated in 1960 as a non-profit.
- Awardee of USDA-RUS Pilot Broadband Program, ARRA and MN B2B.
- 6700 members, 190 service areas in 25 MN Counties.
- Network is hybrid in nature, sparse deployment - 20 year old wireless entity.
- Combination of fiber and microwave backhaul.
- Redundant DIA in Windom and Granite Falls.
- Current LTE deployment with “small cell” implementation.



MVTV Wireless is a business and residential broadband wireless internet service provider. Multiple technologies, inclusive of LTE allows us to bring internet to rural southwestern and central Minnesota.



Q & A Discussion

- Technology
 - Coverage
 - Funding
 - Competition
 - Future
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